

VIA FAX AND MAIL (including 5 pages in total)

TBK-Patent POB 20 19 18 80019 München

PRV InterPat

Box 5055
SE-102 42 Stockholm

Patentanwälte

Dipl.-Ing. Reinhard Kinne
Dipl.-Ing. Hans-Bernd Pellmann
Dipl.-Ing. Klaus Grams
Dipl.-Ing. Aurel Vollnals
Dipl.-Ing. Thomas J.A. Leson
Dipl.-Ing. Dr. Georgi Chivarov
Dipl.-Ing. Matthias Grill
Dipl.-Ing. Alexander Kühn
Dipl.-Ing. Rainer Böckelen
Dipl.-Ing. Stefan Klingele
Dipl.-Chem. Stefan Bühling
Dipl.-Ing. Ronald Roth
Dipl.-Ing. Jürgen Faller
Dipl.-Ing. Hans-Ludwig Trösch
Rechtsanwälte
Michael Zöbisch

May 12, 2004

PCT-Patent Application No.: PCT/IB02/02492
Nokia Corporation et al.

Our ref: WO 34762

(Frist: 16.06. Eing.)

Reference is made to the Written Opinion dated February 16, 2004.

Enclosed herewith new claims 1, 13 and 16 are filed, which replace the respective original claims 1, 13 and 16.

These claims were amended based on the original disclosure of page 7, lines 26 to 29.

The thus defined subject-matter is believed to define novel as well as inventive subject-matter under the regulations of the Patent Cooperation Treaty for the following reasons:

According to the present invention, a feature thereof resides in the fact that the load balancing unit selects any free processing unit on a per-packet basis, based on the load state, so that a respective single processing unit is not dedicated to serve a specific connection (or a call).

10/518930

DT01 Rec'd PCT/FTC 27 DEC 2004

Stated in other words, differences between different sessions do not affect load balancing according to the present invention.

Thus, the present invention achieves a solution in which a respective processing unit handles packets of various connections/calls/sessions.

The prior art cited in the present invention itself and described with reference to Figure 3 selects a processing unit on a per-connection basis. This means, that each connection is associated to a dedicated processing unit processing packets received for said connection.

Document D1, however, is based on the same principle. Namely, according to document D1, load balancing is done session-based. In this connection, it is referred to Figure 6 of document D1. Indeed, according to Figure 6, address information is read from a packet header and thus, based on this information, it is verified whether a connection table entry exists or whether a new connection table entry for such a connection being identifiable by such address information from a packet header has to be created.

Hence, it has to be noted that each packet being identified to belong to the same connection is handled in the same manner. Therefore, the selection criteria according to document D1 is not the packet as such but the connection/session to which the packet belongs.

In contrast thereto, according to the present invention, irrespective of a connection/session to which a packet belongs, a respective packet is routed to an available processing unit.

In consideration of the above basic difference between the cited prior art and the present, the claims have been amended to clearly point out this difference.

The prior art apparently does neither anticipate nor render obvious the claimed subject-matter.

The competent International Preliminary Examiner's reconsideration of the present case in the light of the above observations will thus lead to acknowledging the patentability of the claimed subject-matter in terms of novelty, inventive step as well as industrial applicability.

Hence, a positive International Preliminary Report on Patentability under chapter II PCT is respectfully requested to be issued as the appropriate next step of the proceedings.

Jürgen Faller
Patentanwalt
TBK-Patent

Enclosure:

- New claims 1, 13 and 16

Enclosure of May 12, 2004

PCT-Patent Application No.: PCT/IB02/02492
Nokia Corporation et al.
Our ref: WO 34762

5

New claims 1, 13 and 16

10 1. A method for balancing the load of resources in a packet switched connection within a communication system, said system comprising processing units (11; 12) for performing communication, at least one load balancing unit (12; 22) for distributing the load to said processing units (11; 12), and a data storage (14; 24), said method comprising the steps of:

obtaining a current connection state as well as a current load state of said processing units from said data storage (14; 24);

20 selecting by said load balancing unit (12; 22) a processing unit on a per packet basis irrespective of a specific connection to which a respective packet belongs;

25 maintaining information about the load state of each processing unit (11; 21) so that said selecting step is performed by selecting a processing unit to serve and process a respective packet based on the load state.

13. A device unit for serving and processing packets of a communication connection, comprising:

30 means adapted to inform a load state of said device to a balancing unit; and

means adapted to obtain a state of said communication connection,

35 wherein said device unit is adapted to serve and process packets of plural connections.

16. A device unit for balancing a load of each of multiple processing units performing a packet switched communication connection, comprising:

5 means for maintaining a load state of each of said processing units; and

means adapted to select a processing unit on the basis of a respective load state on a per packet basis irrespective of a specific connection to which a respective packet belongs.